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NEW YORK AND CHICAGO.

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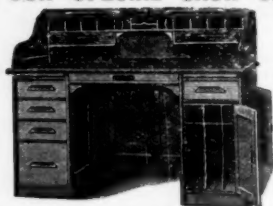
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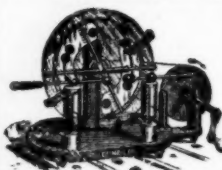
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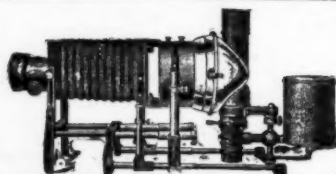
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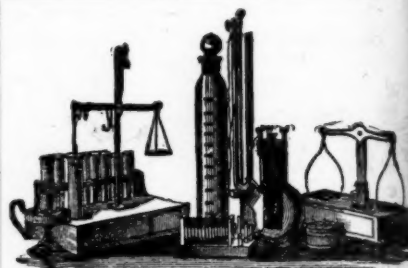
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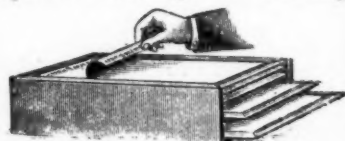
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THE SCHOOL JOURNAL

A Weekly Journal of Education.

Vol. XLV.

For the Week Ending December 24.

No. 23

Copyright, 1892, by E. L. Kellogg & Co.

The business department of THE JOURNAL is on page 626.

All letters relating to contributions should be addressed plainly, "Editors of SCHOOL JOURNAL." All letters about subscriptions should be addressed to E. L. Kellogg & Co. Do not put editorial and business items on the same sheet.



WHY do you teach?" was asked of a young man of superior ability. "Because I am happy in teaching," was the reply. It is a mystery to many persons why men of evidently superior mind teach or preach instead of making money, as it seems they might.

There is a reason for this and it has been well stated by John Boyle O'Reilly: "My experience of life makes me sure of one truth, which I do not try to explain: that the sweetest happiness we ever know, the very wine of human life, comes not from love, but from sacrifice—from the effort to make others happy. This is as true to me as that my flesh will burn if I touch red-hot metal."

It is plain to all readers that the war which was waged against the public schools by the Catholic priests, (for it was not by the Catholic laity) is now over. The Pope, through his representative in this country, with sound sense recognizes the public school as a most valuable and beneficent institution. It is seen that there must be hundreds of thousands of children of Catholic parents who cannot attend a parochial school because none exists in their locality; such are advised to attend public schools. The Pope deserves high praise for his sound sense, and for saying in effect, "Get an education at all hazards, with religion if possible; but at all events get an education."

One of these days there will be an overhauling of the educational ship to see what sort of timber the boards of education are made of. In Ohio one board has members that set dogs and cocks to fighting! The time has not come yet, but by-and-by the interests of the children will be seen to demand that the best men be on the school boards. A case is noted where a member used to come drunk into the school!

If any one did not believe before he must believe now in the general need of education. Men representing the carpenters, plumbers, etc., meet and what do they do? Do they propose some way to improve carpentry or plumbing? Not at all. Such a thing has not happened at a meeting of laboring men yet. They meet to devise some way to employ force for advancing their interests. They do not seem to know that it is brain labor that rules the world; muscular labor is passing into the hands of the steam engine. Give the laboring man an education and he will be no striker. It is a wonder that these strikers do not see that the road to better things lies through the school-house.

A subscriber in Ohio says: "We ought to have upheld the Detroit board of education because they tried to keep the

Catholics from getting places as teachers." But why should not a Catholic teach? We take the broad ground that anyone who secures a certificate of fitness should not be questioned as to his or her religion. The Detroit board should have said: "We will employ no teacher who does not have a life diploma." For that matter, all cities should do this.

There is a tendency towards deterioration in the keeping of holidays. The teacher should instruct the children in the true meaning of Christmas, Thanksgiving, Independence day, and Washington's birthday. Quite a number of schools kept the Thanksgiving idea alive by having pupils tell in essays what they had to be thankful for. Christmas should be known to the children as the day when the world really began to go upward. It is certainly celebrated with increasing importance every year. New Year's day is destined to sink; it was undoubtedly celebrated to aid in keeping track of the calendar in ignorant times, so that laboring men would know when the term of service expired.

The civil authorities in New Haven have done a good thing in arresting students and fining them for disorder at the theater. There has been too much overlooking the misdoings of students because they were students; a student should behave better than other young men. Why should a young man who has had the advantages of several years in the preparatory school go unpunished for throwing a torpedo among a collection of people, and a young carpenter or clerk be summarily dealt with? It should be the other way.

There is an attempt being made to involve the Young Men's Christian Associations in the athletic craze. For them to play base-ball or other games for the purpose of physical development is well enough, but to follow the colleges and take in money at the gate, to make efforts to outdo others in order to be talked of, to place themselves before the community as a swift horse would be, is unworthy; such things demoralize. A captain of a steamboat when appealed to for better order replied: "I've got a base-ball club on board; they are the worst I have to deal with. I am always sorry to have them." This means something.

A letter from a well meaning friend says: "I am glad THE JOURNAL takes no notice of the quarrels going on up here, etc." THE JOURNAL is dedicated to the highest work that can possibly be done by an educational paper—that of pouring all the light possible on the transcendently important work of education. It would be wandering wildly out of its way, if it answered abuse by abuse. The kingdom of education is not to be gained by such means. The question that is above all other questions is, How shall we make educational advancement?

Suggestions for the School-Room.

THE TEACHER'S MANNERS.

1. The teacher should strive to have dignified, gentlemanly, and easy manners.
2. The teacher should be enthusiastic and energetic; thus he will lead his pupils to feel they are engaged in an important work.
3. The teacher should avoid seeming cold and uninterested; yet he must not be excitable, nervous, and fretful. The words *lively interest* describe what is needed.
4. The teacher should not laugh at the mistakes of his pupils or ridicule them because they are ignorant. He must never allow a pupil with a defect to feel that he is thereby lowered in the estimation of his teacher.

CLASS METHOD.

5. The teacher's way should be one that will stimulate inquiry; if he is not able to answer the questions that may thus be elicited, let him be willing to own this.
6. The teacher should not be too ready to offer to help a pupil out of a difficulty. The recitation is for the purpose of causing the pupil to think; to prevent his doing this is almost a crime.
7. While there must be method and system in the class, this is only a means to an end; there is such a thing as too much "red tape" in school.
8. The pupil must look forward to the recitation with pleasure; it is a sort of field for brain athletics.

THE TEACHER'S PERSONALITY.

9. The teacher should cultivate the tones of the voice; as he uses his voice so much, it is important that its sound be a pleasing one.
10. The teacher should be pleasant and affable in his bearing towards pupils; they insensibly take him for a model in manners.
11. The teacher must have a manner that will encourage the timid. These always exist; they appreciate every encouragement they get.
12. The teacher should remember he is read like a look; he will, therefore, not pick his teeth or nose, or lean up against the side of the door, or do the many things the uncultivated do.

CLASS MANNERS.

13. It is best for the teacher to stand, especially if the class is large; but this is subject to physical strength of course.
14. His aim must be to manage so as to keep all in the class interested and busy in profitable work; then is the time when the pupil *has* him.
15. The test is interest; the method of recitation should be changed the moment the interest begins to flag, even if the teacher feels that they ought to be interested.
16. The teacher should not take up the theme as if it was an old story to him; or as if the work was a preparatory one.

CLASS HABITS.

17. The teacher should be prompt in calling and dismissing classes; his pupils will get to feel that he is reliable if he stops in the midst of a sentence because the time has expired.
18. The teacher should show by his manner that his mind is upon the answers the pupils give; that he follows the train of thought.
19. The teacher must show himself independent of the book—that is in most things.
20. The teacher must aim to reach the lower half of the class; he must not let two or three of the best do the reciting.
21. The teacher should take a position that will enable him to keep all of his pupils in sight; to give his attention to one pupil at the blackboard is to tempt the rest to mischief.
22. The teacher should govern his temper. To scold a class is sure to produce bad feeling and disorder.
23. The time of the recitation is not to be taken up in

reprimanding pupils. A simple shake of the head is all that the time will allow; the rest have claims.

24. The teacher should be watchful that his pupils use correct speech; not that he should take up the time of an arithmetic class to demand reasons for using a plural verb with a singular subject, but that he may know the faults of the class in language.

25. The teacher's own language should be well chosen and correct. The blind cannot lead the blind.

THE MOVING PURPOSE.

26. No pupil is satisfied until he has found out the kind of man the teacher is; let this be borne in mind. He must, therefore, daily strive to have pure and high purposes.

27. Few pupils really advance unless the teacher is himself advancing. Dr. Arnold puts it: "All prefer to drink from a spring rather than a pond."

28. A school without a religious spirit in it has a grievous look. No one can object to the silent prayers the real teacher puts up for guidance.

29. If the teacher is animated by a high purpose and loves his pupils he cannot but produce lasting impressions.

The Two Schools.

As soon as the human race achieved civilization it discovered two things—that some men had a power to lift others to higher regions of thought, and that it was essential to impart a knowledge of written language and computation. These two are not necessarily related, and in the early days they were wholly separate. Every nation had its "wise men;" there were those who, like Socrates and Plato, without fee or reward imparted their conclusions concerning the great problems that thrust themselves forward when men had leisure to think. But these men dealt with manuscripts, for the problems were too vast for one age to handle alone; the conclusions of preceding generations were sought.

The idea of teaching writing and computation had a commercial basis; it was done to promote the usefulness of the individual. There was no attempt in the early days to make learning the alphabet and the digits result in an elevated or improved character or mode of life.

As time has gone on, it has been seen that the existence of a body of men who shall follow in the footsteps of the philosophers, who shall present the problems of life to minds in a formative stage, and who shall be able to lift youth into the higher regions of thought, is absolutely necessary. It has cost the world a great expenditure of time and money to find this out, but it may be asserted that the civilized nations of the earth are determined to provide the means of enlightenment, for the on-coming generations; and if there is close scrutiny given to the trend of thought it will be seen that more is meant than enlightenment—a good deal more.

The advanced school aims at implanting right thinking and right living. There is another school that aims to follow the paths beaten out 2,000 years ago. The best example of this to-day on the earth is the Chinese nation; the arts of writing and computation are extensively taught, and yet human progress and happiness are stagnant. The true human foundation was discovered 3,000 years ago; the Semitic nation had the best conception of education as well as of religion: "To know wisdom and instruction, to perceive the words of understanding—to give to the young man knowledge and discretion."

This is in the language of long ago, and it is the utterance of an oriental mind, and hence it differs immensely in its statement from what the Western mind would say to-day in technical, but well understood phrases.

These two schools of thought are in the field to-day: There are those who declare the business of the teacher is to cram certain information down the throat of the pupil; there are those who conceive the work of the teacher to be to direct the pupil in his search for knowledge—knowledge that shall form a part of his "life." ("Take fast hold of instruction, for she is thy life."—Prov. 4-13.) The discussions concerning education turn on these points. Men differ and join different schools of thought somewhat according to their conception of the facts before them, but temperament is quite a factor; the ruling idea of life is another. One who teaches in order to get a living is likely to adopt the Chinese conception of education; one who lives to teach will assuredly choose the other.

One would realize God's thought of man; the other man's idea of man. One makes quantity the goal; the other character—or a normally-built mind. One runs its sounding line into motives; the other into facts. One turns to God's book—the field of nature; the other begins with man's discoveries. One values the child; the other what the child has accumulated. One begins as the Creator begins, and humbly attempts his work; the other ignores the fact that the Infinite speaks to each heart in the universe.

The Chinese school or the Semitic, which? One who has looked over the literature of education for the past century with care cannot but conclude the latter is as sure to rule, as that religion that originated out of Semitic thought is destined to spread from pole to pole.

Teaching Music.

By a NON-PROFESSIONAL TEACHER.

In the schools of most cities a teacher is employed who does nothing but teach music; he has his voice in training; he is not afraid to sing a strain and say, "Sing it like that." Usually, too, he can sit down at the piano and play with readiness; play and sing at the same time. He has an "ear" for music, and can catch any discordant note and point out where it occurs. He can rouse enthusiasm and get all the room to sing; this means he can obtain the confidence of the pupils.

In ninety-nine school-rooms out of a hundred there is no such person to face the pupils. Whatever is done has to be done by the teacher who teaches the arithmetic, the reading, and the spelling. He rarely has had any musical education, having given his whole time to studying and reciting from text-books. He may be able to sing—that is, read his part from the score, if the piece be an easy one. This is the condition of things in most of the schools of the country; for such school-rooms these articles are written.

DETERMINE TO DO IT.

The first step is to determine to teach music in your school-room, no matter how bashful you may feel. And you must base your determination on the fact that you cannot do your duty by your pupils without teaching them to sing. In other words, you must put a right value on music as a means of mental development. If you think a child can be educated and not sing you make a great mistake; don't attempt to correct your Creator. Accept the fact that your pupils are to learn to sing and that you are to aid them intelligently.

CULTIVATE YOUR VOICE.

I shall take it for granted that you have not cultivated your voice as yet and that it is harsh, and that when you sing alone there is nothing very pleasing about it. But you can remedy that. Go to some room where you will not disturb any one and practice the scale of eight notes for fifteen minutes each day. If you can

find fifteen minutes at night also that will help. I say fifteen minutes. Don't think if you take an hour so much the better; it is not better. Fifteen minutes may be too long at first, for your throat is not accustomed to this work—note it is *work*. (And when you are practicing with your pupils remember this rule.) You should have a tuning-fork, one with the C pitch and take the pitch every time.

1. Sing do, re, mi, fa, sol, la, si, do; do si, la, sol, fa, mi, re, do, a few times slowly and carefully, paying attention to your position and the sound you make. Be sure you stand properly, hold your head properly, and open your mouth well. Let the sound be on the vowels, not on the consonants.

2. Sing the scale next, using the syllable la. Pay attention to the position and sound. The sound should come out even and smooth; aim at a musical note. By this is meant a resonant sound free from thickness, and, as singers say, "muddiness."

The best time to sing you will find is before the morning meal; you cannot produce a good sound right after eating, nor is it hygienic to try to do it. Wait an hour after a meal before you practice; the same rule must be observed in case of your pupils.

3. After singing the scale a few times note by the tuning-fork whether you keep up to the pitch; it is common for unskilful ones to drop below the pitch. Therefore, start yourself with the tuning-fork and when you come down to "do" try your voice with the tuning fork to see if you exactly agree with it. Do this again and again and you will acquire the power to sing accurately.

4. The lessons here laid out should cover months; in fact, you should practice the scale every day for years. You will set your students at work cultivating their voices and they will practice for years and thus eventually have fine musical voices. If your teacher had done this for you, you would now feel very grateful.

CULTIVATE THE VOICES OF YOUR PUPILS.

You will set apart some time every day for music; there will be perfect order; all will sit erect; you will stand before them with a rod in your hand; you will look perfectly self-possessed even if you don't feel so. You will take the pitch of C from the tuning-fork if there is no instrument, and waving your rod, start the entire school into singing the scale.

You must acquire skill in waving your rod; it must not be too long—about twelve inches is the thing. Tap the desk with it and it will bring order. Say what you have to say briefly, and waving your rod, go at the scale again.

This means that you must acquire skill in "conducting" the school; this is an act independent of art in singing, and you must recognize it. You must move about some (not overdo it) and make your hand, waving the rod, your voice, and gestures and looks, rouse the school to do as you desire. It will be somewhat as follows supposing the time to have come for singing, that you have the pitch, that you are standing confidently before the school rod in hand:

Tapping on the desk: "Now then, let the sounds be sweet and pleasant. All together (lifting the rod and as you bring it down); do, re, mi, fa, etc. (making a movement of some kind with the rod at each sound). Again, do, re, me, etc. (turning to right then left and all the time waving the rod neatly, gracefully and authoritatively). Again a little louder, do, re, mi, etc. (tapping). That was pretty well done. Now the scale with the syllable la (tapping and waving rod), la, la, la, etc.

The proper use of the rod will come with practice; it may be made an instrument of power; it enables those sitting back to sing with the rest; it brings help to the brain through the eye. Let no one attempt to train voices without studying how to use the rod; it tells the class what you want them to do.

And then as to your remarks; you must learn to intersperse fitting words. Music is different from arithmetic; the whole class must have enthusiasm, brightness, co-operativeness; smiles must be on the faces;

they must be in a plastic mood, ready and willing to be molded to your will.

Until you get yourself and them up into this state—(1) you feeling able to inspire and mold them, and to get musical notes out of them, (2) they feeling you have power to make them make musical sounds and generally to make them enthusiastic and happy when with you, you had better keep on with the scale—do, re, etc., and la, la, day after day.

Of course this does not mean you are not to sing pieces of music as well as you can during the day; of course you will do that.

Art Decorations for School-Rooms.

By WILLIAM A. MOWRY, Ph. D., Salem, Mass.

Mr. Ross Turner, the Salem artist, may well be called the apostle of public school art decoration. With the aid of a number of foremost citizens, and the approbation of the school board, Mr. Turner has started in the public schools of Salem, Mass., a movement destined to be generally introduced into the school-houses throughout the country, and to exert an important influence upon our system of public education. The movement began in the Phillips school-house, where at first one room was properly fitted up; the walls tinted in a quiet grayish tone, soft and agreeable to the eye, thus forming a good background, where were hung engravings, photographs, and solar prints of some of the most famous pictures of the world. A circular was issued, prepared by Mr. Turner, and signed by a committee of five gentlemen, calling for contributions to extend the work thus begun. Meantime the matter was brought to the attention of the school board, who gave it their formal sanction and encouragement, and the mayor cordially commended it in his annual address.

From this beginning in one room, the work has been gradually extending, until now decorations are found in nearly all the school-houses of the city. The walls are tinted and hung with engravings and prints, while over the doors and above the blackboards are bracket shelves upon which and upon pedestals by the side of the teacher's desk are casts and busts of famous men, representations of bas-relief groups, and such like sculptures. The plan contemplates the ornamentation in this way of the school-rooms of all grades in the city. These works of art are selected and grouped simply upon artistic principles. It is proposed to have portraits of statesmen, heroes, authors, men illustrious in history and that have set great examples for youth; also pictures of buildings, representing notable and architectural works and structures celebrated in history. Pictures of kindred associations are brought together as much as possible in the same room. Thus in one room will be pictures of Venice; in another, of Rome; in another, of Florence. A picture of Sir Walter Scott will have one accompanying it of Melrose Abbey. A large photograph of the Mansion House at Mount Vernon, six or seven feet long, will have near it a fine full length figure of Washington. There will be in solar prints a head of life size, of Lincoln, Franklin, Henry Clay, Longfellow, Holmes, Whittier, and other distinguished Americans. The portrait of Whittier is accompanied by an autograph dedicatory letter, and the portraits of Longfellow and Holmes are enriched by their autographs. In one room is a large picture of the Coliseum at Rome; pictures of two of the most beautiful palaces on the Grand canal in Venice; a picture of the cathedral of St. Marks, and a picture of the grand statue of Colleoni, by Verrochio, which stands in front of the church of San Giovanni e Paolo.

The portraits are usually glazed, but the other pictures, such as are five or six feet long or more, are not covered with glass, because it would be cheaper to replace them when soiled, than to go to the expense of glazing. Accompanying each picture is a placard plainly printed, in large letters, giving its title and a few important facts concerning the subject. For instance, beneath a photograph of the great work of Verrochio is

the following inscription, quoted from Ruskin:

"I do not believe there is a more glorious work of sculpture existing in the world than the equestrian statue of Bartholomeo Colleoni."

The plaster casts are furnished from Caproni Brothers, Province Court, Boston. The solar prints and solar enlargements are made by William H. Pierce & Co., 353 Washington St., Boston.

We may well agree with Mr. Turner, when he says that he "believes that the future of art in this country depends not so much upon the patronage and appreciation, of the comparatively few who have means and leisure, as upon the cultivation of good taste among the great mass of the people, made possible through a familiarity with beautiful and artistic things." By beautifying the surroundings of the children in the school-room, they would thus become accustomed to what is good and true in art; they would unconsciously absorb its influence, and they would inevitably learn to appreciate true art almost intuitively. The result must necessarily be better architecture, both in public buildings, and in the homes of the people, and the exercise of a better taste in the embellishments of the same. The influence of these pictures, and this statuary, will inevitably tend to broaden the knowledge the children will acquire in their geography and history, stimulate their love for these studies, and, in a marked degree, influence their patriotic appreciation of our own country. When the introduction of this art embellishment in our school-rooms shall have been completed, when in addition to the music charts, historical charts, library books, wall maps, globes, and other direct aids to teaching, the walls are tastefully embellished with these various works of art, properly grouped and arranged, how different the school-room of the modern child will appear from the bare walls and unsightly surroundings of the old red school-house of the fathers.

Salem may well be proud that here has been initiated a movement which has already been followed by more or less effort in Providence and St. Louis, in a number of towns in Massachusetts and New Hampshire, and particularly in the English high school, the Rice primary school and other schools in Boston, and which has moreover already resulted in the organization of "The Public School Art League of America," with its headquarters at Boston, from which it desires to extend the work over America, giving aid and counsel wherever it may.

Some very important questions will occupy the attention of Congress at the present session. One of these, mentioned by President Harrison in his message, relates to a waterway for American vessels through our own territory. They now pass through the Welland canal, and the St. Lawrence river and canals. The principal reason why such a work is necessary is that the Canadians have discriminated against our vessels. The friends of the Nicaragua canal are also pressing the claims of that enterprise on the attention of Congress. The advantages of American control of the canal will be so great that the government should guarantee the amount required to complete it, rather than allow German or English capital to obtain control. Another matter that demands settlement relates to the currency. Two bills diametrically opposed to each other have been introduced;—one asks for the repeal of the act of 1890 relating to the coinage of silver, and the other not only demands that we have more silver, but that it be made a legal tender for all debts, public and private. The sentiment of the country, taking into consideration the present conditions, seems to be in favor of a repeal of the silver coinage act of 1890.

The best part of one's life is the performance of his daily duties. All higher motives, ideas, conceptions, sentiments in a man are of no account if they do not come forward to strengthen him for the better discharge of the duties which devolve upon him in the ordinary affairs of life.—*Henry Ward Beecher.*

The School Room.

DEC. 24.—EARTH AND SELF.
DEC. 31.—NUMBERS AND PEOPLE.
JAN. 7.—PRIMARY.
JAN. 14.—DOING AND ETHICS.
JAN. 21.—LANGUAGE AND THINGS.

A commonplace life, we say, and we sigh ;

But why should we sigh as we say ?

The commonplace sun in the commonplace sky
Makes up the commonplace day.

The moon and the stars are commonplace things,
And the flower that blooms and the bird that sings.

But dark were the world, and sad our lot

If the flowers failed and the sun shone not.

And God, who studies each separate soul,

Out of commonplace lives makes His beautiful whole.

—Susan Coolidge.

Minerals. V.

By MINER H. PADDOCK, High School, Jersey City, N. J.

LESSONS ON PROPERTIES.

I. HARDNESS—THE SCALE.

Pupils, you now have your minerals in hand as in your previous lesson (No. III.), and you readily recall the names of those which we learned. You remember, too, that we found they differ in several marked ways which we call properties. We now want to carry our study a little further and see how the same property may vary for different minerals.

What is the first in the list of properties which we have agreed upon in our complete scheme of study? "Hardness." And have we learned anything further than the quality? "We have found they differ in hardness." Very true. To-day we will arrange them in their order of hardness. How soft do you find some of these to be? "They rub off on the hands." Very good. Those that have these lift them up so that we can all see. What is that grayish, soft mineral called? "Steatite." And that black shining one? "Graphite." Yes; I believe I have given you these names and you have remembered them, as you have seen the minerals lying upon the shelves in the case. We will put these at one end of the list and call them No. 1: Steatite, graphite.

Now try again and find which ones you judge to be softest of those that remain. Ah, here they are. What is that white one? "Gypsum." That clear, glassy one? "Halite." And what is that one which you have in thin layers? "Mica."

Now, how do these differ from the other soft ones? "I can just scratch them with the thumb-nail." Very good! These we will call No. 2.

We must now test the others with something harder than the finger-nail. Try a pin. Are there any you can scratch with a pin? "We find several." Hold them up, and name them.

"Calcite." "Serpentine." "Galena." "Coal." Very well; these we will call No. 3.

Now, we must have something firmer than a pin point. Try a knife. Are there any that scratch easily with an ordinary knife point? Ah, I see. Name them. "Fluorite." "Azurite." "Zincite." Yes; these we will arrange as No. 4 in the scale we are making. And here are some that scratch with difficulty with the knife—apatite, hematite. We will make these No. 5.

We must now lay aside the knife and try this hard, three-cornered file. See; it just scratches three of our minerals—feldspar, magnetite, pyrite. These must be No. 6.

And now we are at a loss how to scratch the others, as our file glides smoothly over them. But we try our minerals on one another and we find the topaz and corundum both scratch quartz, while corundum scratches topaz. Corundum of our list is the hardest, but if you have a diamond convenient you will find it scratches corundum. We arrange our results on the board and we have,

- No. 1. Steatite, graphite.
- No. 2. Gypsum, halite, mica.
- No. 3. Calcite, serpentine, galena, coal.
- No. 4. Fluorite, azurite, zincite.
- No. 5. Apatite, hematite.
- No. 6. Feldspar, magnetite, pyrite.
- No. 7. Quartz.
- No. 8. Topaz.
- No. 9. Corundum.

We must not fancy that those in each class are of exactly the same degree of hardness. For instance, graphite is slightly harder than steatite. Gypsum varies slightly in hardness. Serpentine may vary from 2.5 to 4, which is quite extreme, but these slight variations do not impair at all hardness as a test.

We have here established degrees of hardness and we take one mineral to represent each degree. Doing this we have a student's scale of hardness for minerals, as follows:

1. Steatite rubs off, scratches easily with finger-nail,

2. Gypsum, with finger-nail less easily.
3. Calcite, scratches with a pin.
4. Fluorite, with a knife point.
5. Apatite, difficultly with knife point.
6. Feldspar, scratches with a file.
7. Quartz, too hard for file.
8. Topaz, scratches with No. 9.
9. Corundum, scratches with diamond.

This table should be copied by pupils who use a note-book, and all should become quite familiar with it. The hand will become educated to the degrees of hardness, so that the scale becomes an important test, a kind of alphabet in the study of minerals. In testing for hardness find a fresh, unweathered surface to be tested. The minerals of the scale may be applied directly in close testing, scratching one mineral against the other. Scratch handsome specimens only in inconspicuous places. Note whether you have really scratched your mineral or made a mark on it from your scratcher. It is not necessary to bear on hard.

Illustration.—I have a white, snowy mineral. Is it gypsum or magnesite? I test its hardness; it is between 3 and 4, and it is certain not to be gypsum.

II. CLEAVAGE.

We now take up an interesting property,—the tendency which minerals frequently have to separate, when broken, with smooth faces having fixed directions.

The cleavage is sometimes in one direction only, the other separations—those without smooth faces and fixed directions—being fractures. (See topaz, mica. In these the cleavage is called *perfect*.) A cleavage in one direction is assumed to be parallel to the base and is called *basal*.

Sometimes the mineral will part with cleavage faces in two directions, and of these one may be perfect and the other only very *distinct*. (See feldspar, the third direction of separation in feldspar being a fracture.) In feldspar the cleavage faces, one will notice in looking at the mineral, are just about at right angles to each other.

Sometimes the mineral will part with cleavage faces in three directions at right angles to each other. (See galena, halite.) This is called cubical, or like a cube. Sometimes the three faces of cleavage are at such angles to each other that each of the six faces forming the surface of the mineral is a rhombus. The cleavage is then rhombohedral. (See calcite.)

Sometimes the planes of cleavage lie in more than three directions, as in fluorite. Sometimes there is no cleavage face, as in quartz.

The following scheme sums up the forms of cleavage which may be used in oral lessons as has been followed with hardness, or copied into note-books though, for sake of completeness, the writer includes some minerals not mentioned in the list:

1. Degree.

(a) Perfect, or eminent; as mica, topaz, calcite, galena, halite, fluorite, zincite.

(b) Distinct; very marked but not perfect, as celestite and one direction of feldspar.

(c) Imperfect; as apatite.

(d) Indistinct; as hematite.

(e) Difficult or wanting.

II. Forms.—parallel.

(a) To base section, basal, as topaz.

(b) To the prism, prismatic, as amphibole.

(c) To faces of a cube, cubic, as galena.

(d) To the octahedron, octahedral, as fluorite.

(e) Dodecahedral, as sphalerite.

(f) Rhombohedral, as calcite.

Forms.—direction.

In one direction, as topaz.

In two directions, as feldspar.

In three directions, as calcite.

See also *d* and *e* above.

NOTE:—The above is not expected to completely treat of the cleavage of the twenty minerals named, but to give sufficient, so that the pupil can determine the rest. For pupils of lower grades the three directions, with perhaps cubical and rhombohedral, will suffice to mention.

The arrangement of molecules undoubtedly causes the cleavage. Hence cleavage illustrates molecular arrangement in physics. Cleavage forms will be distinguished from crystals. Crystals are minerals found in nature with smooth surfaces making fixed angles with each other. But crystals may or may not have cleavage (quartz crystals have no cleavage), and when crystals have cleavage they may cleave in very different shapes from the outside form of the crystal, as when a cubical crystal of fluorite cleaves in octahedral forms; still we may say that a body which has cleavage is crystalline in arrangement of its molecules. Practice soon familiarizes the pupil with the above forms.

Fracture may be described as

1. Conchoidal; rounded like a shell, as flint.
2. Even; rough but approximately a plane surface.
3. Uneven; like the fracture of feldspar, topaz,
4. Hackly; jagged like broken iron.

Physical Culture. II.

By HANS BALLIN, M. G., Supervisor of Physical Culture, Public Schools, Sandusky, O.

Physiology teaches us that by the contraction of a muscle the imbedded nerve-fibers also are excited. This excitement is transmitted to the so-called peripheral ends of the nerves, either as a



Fig. 4.

the culture of those psychical qualities just described.

We thus explained in a few words the physiological effect of physical exercises on the nervous system. This is the theory, or the truth, which must dictate the teacher to apply a system methodically that conforms with the theory. He must select his exercises accordingly, and must be consistent and persistent, that they be not executed at haphazard.

If we had merely the strengthening of certain muscles in view, no doubt we could accomplish this with less minute accuracy as to the execution of an exercise. It would suffice for an arm-exercise to raise it to suit

the children, in any way or manner. Let them bend the trunk forward and backward, or sideways, and you may be sure that many muscles are involved.

But have for all exercises certain unchanged rules, which demand the attention of the pupils; the most simple movements become of value.

We distinguish on our body two halves, the right and left, with their corresponding parts, and an investigation shows a great similarity of the anatomical construction. We do not at present consider our inner organs. We furthermore notice two halves that do not correspond to each other, the front and the back and the upper and lower parts of our body. When we compare the construction and form of the right and left side of our body we will find a similarity as a whole and as separately compared. They may be qualified as counterpart of the sameness, or as congruity in the opposite. Thus is the right side of the face, although opposite the left, still like the latter; *i. e.*, in congruity.

This is the case with the right arm, the right hand, the right

leg, and the right foot; they are in the same relation with their left counterparts.

We find, as the psychical sequences of this manner of influencing the central nervous system, those virtues of physical culture which make up its ethical and educational value—presence of mind, circumspection, dexterity, courage, mirth, and self-reliance on one's own strength. The organs of the senses are to be considered as direct appendages of the brain, and it therefore appears clearly, that they partake likewise in the same manner in

leg, and the right foot; they are in the same relation with their left counterparts.

This sameness in the counterparts is called symmetry. Let us now consider the evolutions of our limbs to the different directions in a space and we find them of threefold character. Both arms, for example, may be kept and moved in the same, in reciprocal or symmetrical, and in dissimilar or in unequal directions, while at the same time the form of the arms as to themselves is symmetrical or dissimilar in position and motion.

These manifold relations of positions and motions of the different symmetrical parts of the body, in so many different directions and by so many different evolutions, involve a close watching of the effect of bodily exercises on the nerves.

The practice of all exercises of physical culture must therefore be dictated by such a method as scrupulously observes the execution as to form and directions.

SECOND LESSON.

The teacher may take the following exercises compiled in lessons in the same order as they are given. Exercises which are not explained are those which appeared in previous numbers of THE JOURNAL.

(1) Raise arms forward—1! (Fig. 2.)

Lower arms—2! (Fig. 1.)

Raise arms two counts, in time—Begin! 1! 2! etc.

(2) Hands on hips—Place! (Fig. 4.)

Arms—Down! (Fig. 1.)

(Hands are placed on the hip-bones, elbows are drawn backward, fingers point downward, thumb is backward. The scholar likes to deviate from these rules. Fingers are often spread; the thumb is placed in front and the four fingers backward. It will take a long time to secure the correct position. You notice that hand and lower arm are in one straight line. Hands are placed and lowered with vim. Do not say "arms on hips," but say, "arms" ("not hands")—Down!)

Hands on hip in time, two counts—Begin! 1! 2! etc.

(3) Hands on hips—Place! (Fig. 4.)

Step-position forward left—1! (Fig. 5.)

Back to position—2! (Fig. 4.)

Step-position forward, left, in time, two counts—1! 2! etc.

(The step-position, and all positions of the feet and legs, as well as of the arms, require a good deal of practice in regard to direction. Never allow a scholar to look at his feet, or any part of his body that is moved. The foot will be placed into position with considerable noise at first practice. To avoid this, ask for a raising of the heels when placed forward and for a raising of the foot, when placed back to position. *The weight of the body remains on the stationary foot!* The toes are not straight to the front, but outward, just as in fundamental position. Begin all exercises of the feet and legs, with the left foot or leg. This side needs more culture, than the right.)

(4) Step-position forward right—1! (Fig. 5.)

Back to position—2! (Fig. 4.)

Step-position forward right, in time, two counts—Begin! 1! 2! etc.

(5) Hands on hips—Place! (Fig. 4.)



Fig. 5.

It is a good thing, now and then, to let the irreverent, untrained eye take in the present situation, in the school-room. Somebody in the Providence *Journal* thus gives the "shady side" of the attempt of the primary teacher to follow her course of study:

"The teacher is in charge of a primary department, and she is expected to stand a good part of the day so that the scholars may see her and admire her. She is not to impart knowledge, but to pump it from the infants, as it were, and it is a painful process. The end of a pencil is displayed, for instance, and the child is asked to name it. He calls it a pencil, at the top of his lungs. 'Yes,' the teacher admits, 'it is a pencil,' but what about the end?' The child in the same key of G pronounces the end to be the point, and he sticks to that for a week or two. And when the teacher is not drawing him out she is questioning him on equilateral triangles because he has played with blocks and cubes, and is supposed to know an equilateral triangle from the nebular hypothesis and Kant's views on pure reason, which he doesn't. Several children have fallen over these triangles and been lamed for life, but that doesn't detract from the theoretical beauty of the system. Then comes the drawing lesson, and each pupil must hold in his hand the potato or onion to be sketched. It brings him into touch with nature to hold the potato or onion, and it adds to the flavor of the room. But in districts where vegetables are scarce it is no fool's job preparing for this exercise. Reading follows the drawing, and is fully as unique. The scholar is expected to toss his chin in the air and lift his eyes at the conclusion of every sentence, to prove that he has grasped the thought. He reads that 'the Queen is on her throne,' and the eyes and chin ought to go up at the end of the word 'throne.' They do not, however. They go up at the end of 'is' and 'on' and 'her,' and at first it makes visitors seasick to look at the bobbing heads. And between the pumping, and the drawing, and the reading there are very gymnastic gymnastics, and the singiest kind of singing, and other things calculated to torture."

SNOW-FLAKES.

"Ever deeper, deeper, deeper fell
The snow o'er all the landscape."

By SARAH E. SCALES, Lowell, Mass.

The treasures of the snow are free to all who are within its realm. We have only to look, to find most wonderful jewels; diamonds and pearls sparkle on every side. Each year it appears to us as an old, yet ever new friend. Formed in the higher regions of the atmosphere it falls to the ground as flakes.

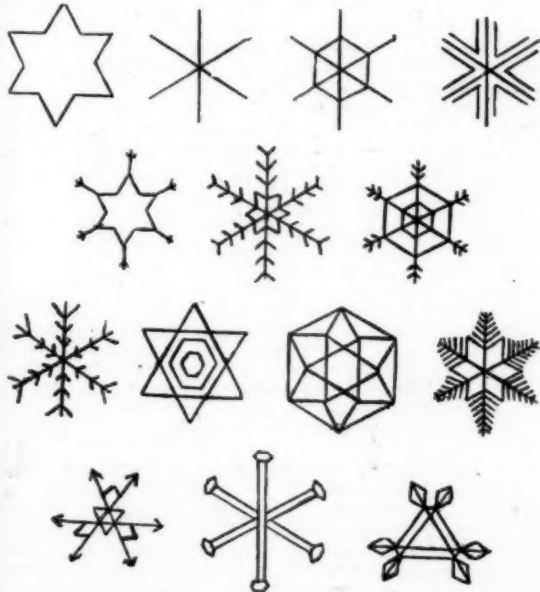
Let us look at these. What can we see?

Beautiful crystals of snow, sparkling and bright, making up the flakes.

How are they formed? The rivers, lakes, and seas send up their moisture as vapor, and when the temperature of the atmosphere is at or below the freezing point (32°) and there is moisture enough, the particles approach each other, and arrange themselves, not as rain-drops, but as crystals of snow. The little crystals or stars are very beautiful, and are found in numberless arrangements. Some are simple, others complex, yet each perfect when formed. Some of these forms are here given.

What shape do the crystals assume?

Scoresby gives three kinds—the prismatic, the pyramidal, either three or six-sided; and the hexagonal, which is of two kinds (either transparent or opaque), one of six-sided plates, the other of six-rayed stars. These are common kinds. Sometimes in a storm they get broken, massed, or ground to powder, or one overlaps another making various combinations, twelve-rayed or otherwise.



These crystals are very small, and while some may be seen readily, yet many do not show their beauties except under the microscope. As to the crystals of the same storm, Gen. Greely gives as his opinion that they are alike, with perhaps combinations. Authorities are not agreed, however.

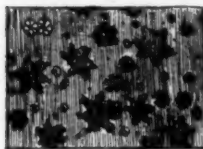
Why is the snow so white?

This is probably due to the many surfaces, reflecting the light, and to the air bubbles enclosed within them. When the crystal melts these surfaces and air bubbles vanish, and only colorless water remains.

The expression "white as snow," shows how it stands in comparison with other substances.

Method of Observing the Shape of Crystals.—Select a cold storm when the snow does not melt. A good microscope and a piece of thick plate glass, will be all that is needed. Fasten the glass on the outside of the window to the sill, to prevent moving, as near the sash as you can. The glass getting cold, retains the shape of the crystal long enough for one to observe it with the

microscope. If a piece of black cloth is exposed, it will catch the flakes, and if they are not too damp, the children can observe them in a cool place. Do not bring them into the warm school-room, for they will melt at once.



The same six-sided or star form prevails in ice. This is shown by Tyndall's experiment. He says, "Take a piece of clear ice on a sunny day and with a magnifying glass look on its surface, and you will see a number of dark six-sided stars looking like flattened flowers." In the center of these is a bright spot. These flowers seen when the ice is melting are the crystal stars turning into water, and the bright spot is the bubble of air left because the watery flowers do not take up as much space as the ice of the crystal did.

Uses of the Snow.—These are many. It serves to cover the ground as a blanket, protecting the roots from the frost and cold. The first snows generally are light and cellular, as it were, in structure. The next are more compact, or dense, forming a solid covering; the later winter and early spring again bring light snows.

These later snows melt sometimes and run off, leaving the plants still protected, till spring awakens them.

The snow serves as a reflector of light, during our short winter days; in Arctic regions, it enables the people to pursue their work. The Esquimaux builds his winter house with it in solid blocks, and it is not only the most common material but the warmest, so far as waste of heat is concerned.

In these regions, it is the best road material. Over it glide the sleighs and sledges, drawn perhaps by dogs or reindeer. Lumbermen on our own pineries, are dependent on it to drag their logs to the nearest stream, to float down in spring. Animals live in it, and upon it, and even under it, finding a warm shelter. The snow-birds, the polar bear, the little snow fleas, are some of these.

The snow is also the reservoir from which the large rivers receive their swelling floods. It is a potent agent in the making of the land, for, solidified as avalanches, it sweeps along everything in its way. As glaciers it wears away the earth and helps form new layers, or sources of rivers.

Its Disadvantages.—One would not think, as the beautiful flakes descend, that there could arise anything which could be called a disadvantage, or be formidable.

But the fearful blizzards of cold, with snow, will tell a different tale. That of Jan. 11, 1888, was the worst ever known in the territories east of the Rocky mountains, resulting in great loss of cattle and other property, besides many human lives. That of March 11-14, 1888, will long be remembered in New York City and New Haven, as well as the country round about.

As a general rule, snow does not fall in sufficient quantities to lie upon the ground south of the 33d parallel, except perhaps in elevated and mountainous regions, nor within about fifty miles of the sea, as far northward as the 35th parallel on the east, and the 38th on the west. This is called the snow limit.

School Children's Eyesight.

The eye is a subject about which much has been written, nevertheless the public is more ignorant on this matter than perhaps any other in the human system. So long as their vision gives them no cause of serious trouble, they ruthlessly goad their eyes on and on until grave intricacies have set in, and some are even so disregardful of the laws of nature as to pay no heed to its clamorings until the precious gift of sight is impaired beyond recovery.

There is no need of all this ignorance; neither is there any necessity for our boys and girls to struggle under the disadvantage of diseased eyes and the consequent suffering which must accompany such debility. The remedy lies with the teachers at the public schools. They have the opportunity of detecting any failure of vision in their scholars, dependent as the children are upon these two wonderful structures to succeed in their work, for every minute of the six hours of daily school life are their eyes used, so that when the first warning of defective eyesight is given by the pupil, the cause should be at once ascertained by the teacher, and further attention recommended.

How is this to be done? In the first place do not understand me as wishing to have our school teachers become expert oculists. Far from it.

I believe these hard-working individuals, already have about all the tasks to which they can attend, and I would be loth to recommend more labor for them. But this I do say, and I am supported in my opinions by a number of the masters and teachers of our schools, that every instructor of our children should have a sufficient knowledge of optics to be able to ascertain whether or not a child has imperfect vision. This knowledge they could obtain by a few minutes' examination, and the results of their findings sent to the child's parents, who would

naturally seek relief. The manner by which this result may be arrived at is very simple, and may be fully acquired by a teacher within a few hours, while the good that may be done to the rising generation is invaluable.

Eye strain, headache, etc., is most conspicuous in the slight corneal deviations. When the irregularities in the corneal curvatures are very marked, the eye, knowing it, ceases to make the effort for sharp vision. It puts up with the blurred impression on the retina, which does not cause headache to the degree of the smaller deviations. An astigmatic headache does not require the taking of temperature, counting the pulse or an examination of the tongue. It simply means a defective shape of the eyeball; a mechanical fault in the form of the cornea; to be corrected by mechanical appliances, as a short leg is made to work by a thicker heel. This fault demands an overtax on the part of the eye-muscles to bring about a needed effect.

Now for the examination made on the trip of experiment. A small white card, 12x30 inches in dimensions was pinned on the wall. On this card were arranged letters in mathematical proportion, to be read from a distance of 20 to 200 feet; it also included an astigmatic diagram composed of block letters with white lines running through them at different angles. A distance of twenty feet was measured off, and one by one the pupils were asked to tell what they saw on the card. In one room of 44 girls, ranging from 13 to 17 years of age, but 26 had normal vision, 14 had abnormal vision, while four had compound errors of refraction which would necessitate the wearing of glasses at all times. One of these girls wore glasses, but could see as well with as without their aid, she wearing them to give her an intellectual (?) appearance; while another said she had worn lenses, but discontinued their use, as she did not like the looks. In the other rooms examined, the results were as bad, if not worse, so that I venture to say that twenty-five per cent. of the scholars of our public schools have serious physical defects of their eyes, ignorant of the cause of their headache, dizziness, and haziness of vision. Is this right?

Everyone must admit that it is not. Then it should be remedied, and that as quickly as possible, while the most expeditious method to accomplish this result is to instruct the teachers what to do to detect this error. It is a duty the school committee owes to the children under their care.

—Arthur W. Brayley, in Boston Transcript.

Wearing Glasses.

It is a trite observation that a very large proportion of the public school children of Providence are obliged to wear glasses. Those who are inclined to be jocular ascribe this to subtle etheric influences wafted from Boston way, but in our serious moments we must seek some other explanation. It cannot be overwork, for this bane of careless systems is pretty well avoided in Providence schools. There is probably less home study here than in many cities, like New York and Brooklyn, where much less satisfactory results are reached; and the two-hour nooning is a blessed privilege to young humanity.

One predisposing cause of short sight is the stooping habit which so many children have. When the head is drooped upon the chest, the blood vessels in the front of the neck are pressed against the collar—too often from parental vanity, tight and stiffly starched—the veins are congested, the face becomes hot, the eyes inflamed.

Another difficulty is the infernal character of the copies in the writing books, and the more or less successful efforts of the children to copy them. Why in the name of common sense is it that children are taught to write after what are called the "shaded" models—so light on the up-strokes that a microscope is needed to see, and expanding on the down-strokes into a meaningless lakelet of black? Under this system the "best" writing, that which follows copy most exactly, is the worst, because the most illegible, and most trying to the eyes. If a second Shakespeare, says a very acute critic of school matters, were to send a manuscript to the *Century* in hair-line script he would be certain to get it back. No sane professional reader would risk his eyesight in trying to make it out. A page of such writing is only visible by its ridiculous shading. The same children who are allowed to read that John Hancock wrote his name so boldly to the Declaration of Independence that George the Third might easily read it, are educated to a species of hand writing so scandalously feeble that it is safe to say that no one could actually keep on writing it and retain any traces of character.

The best writing is that which can be read as rapidly as print, without straining the eyes. The Spencerian flourishes of the writing masters never meets this test. If the children in our public schools were taught to seek legibility rather than any other quality whatever in learning to write, their eyes would be less overworked. What is called a plain business hand, without flourish or ornament, is the desideratum.

—Providence News.

Supplementary.

This department is designed for Friday afternoons, morning exercises, recitations, etc. The material is selected from OUR TIMES; a scholar's newspaper published by E. L. Kellogg & Co. Single copies fifty cents.

Catching the Train.

By MINNIE WOODLE.

(Separate one part of the school-room from the rest by a curtain, using the smaller section thus obtained as the stage. Divide the stage if possible by another curtain, thus providing an outside room where the performers can wait their turn to come in. Scene: A table laid ready for breakfast.)
(Enter in a great hurry Mr. Flapjack, overcoat on, high silk hat, valise in hand.)

Mr. Flapjack.—Maria! Maria! (Seats himself at table, rings the call-bell on table.) Where is that girl? No breakfast yet; the train starts in ten minutes; an appointment with Jack Corkscrew at 10 A. M. *precisely*; and no other train for an hour. Oh! the bliss of living in the suburbs! Maria, Maria!"

(Voice outside.) Coming, sir.

(Enter Maria, enveloped in huge kitchen apron, with a dab of flour on her nose.)

Mr. F.—Maria, bring me something to eat at once.

M.—And—now, Mr. Flapjack! who ever wad have thought to see ye down so arly this mornin'. Is it breakfast ye wants? And isn't the milkman late wid de milk, and the baker wid de bread. And just as luck would have it, the buckwheat cakes are burnt.

Mr. F.—There! there! there! there! don't tell me what there isn't in the house, but bring me what there is. Ham and eggs, mutton chops, beefsteak, coffee, tea, anything—bring me anything so that I can catch that tram.

M.—Will thin, to be sure, if ye will accommodate yourself to circumstances, I can give ye a nice slice of ham and eggs.

Mr. F.—Well! well! well! rush around lively then. (Exit man.)

(Voices outside.)—"My dear John!" "Uncle John!" "Cousin!" "Pa."

(Enter Mrs. Flapjack, Jim Flapjack, Sarah Flapjack, and Mandy Sellow.)

Mr. F.—Maria, hurry that breakfast.

(Chorus of Mrs. F., J. S., S. F. and M. S.) "My dear John," "Uncle," "Pa," "Cousin," "Don't forget."

Mr. F.—Maria, bring that ham!

Mrs. F.—John, I must give you this skein of silk to match in town; be sure you get the same shade, crushed strawberry, or I shall not be able to go to the sewing circle to-morrow, and go I positively must, because that odious—

Mr. F.—Maria, bring those eggs.

Mrs. F.—Now, John, don't forget.

Mr. F.—No, dear (takes out note-book, jots down the memorandum). "Crushed strawberry!"

Mrs. F.—And if you can't get it matched at Stewart's take it to O'Neill's; be sure you get the—

Mr. F.—Ham, Maria. (Takes out watch.) "Five minutes gone!"

Maria.—Coming, sir, coming.

S. F.—Pa, don't forget my skates.

Mr. F.—Maria, Maria.

J. F.—Uncle, don't forget my new boots!

Mr. F.—Maria, Maria.

M. S.—Mr. Flapjack, remember the 2nd volume of Mr. Midshipman Easy at the library.

Mr. F.—(Takes out note-book.) 2nd volume of Mr. Midshipman Easy at the library. Maria.

(Enter Maria bearing plate of ham and eggs. At the same time a whistle is heard. Mr. F. seizes his valise and rushes toward the door; he looks around for one minute at the company.)

Mr. F.—Too late, Maria!

(Chorus from John, Uncle, Cousin, and Pa.) Don't forget.

Red Letter Days in January.

- | | |
|------------------------------------|--|
| Jan. 1. Edmund Burke, b. 1730. | Jan. 11. John Henry Pestalozzi, b. 1745. |
| " 2. Paul H. Hayne, b. 1831. | " 17. Benjamin Franklin, b. 1706. |
| " 3. Lucretia Mott, b. 1793. | " 18. Daniel Webster, b. 1792. |
| " 6. Chas. Sumner, b. 1811. | " 19. Edgar Allan Poe, b. 1811. |
| " 11. Alexander Hamilton, b. 1757. | " 22. Francis Bacon, b. 1561. |
| " 11. Bayard Taylor, b. 1825. | " 23. Lord Byron, b. 1788. |
| Jan. 25. Robert Burns, b. 1759. | |

Chickadee.

By ISAAC BASSETT CHOATE, Boston, Mass.

(It will make a beautiful effect in this recitation to imitate the notes of the bird, and change the voice back again to ordinary speaking tones.)

Chick-a-dee,
 Chick-a-dee-dee-dee-dee-dee,
 This bleak December day
 Sings the titmouse light and gay,
 In his close and comely wrap,
 In his black and jaunty cap,
 While the air is full of snow,
 And the icy flurries blow
 Bitter cold;
 When the ice is on the stream,
 And the sleeping chipmunks dream
 Dreams of old;
 In the woodland all around
 Wailing winds of winter sound,
 Swaying branches snap and creak,
 Pines and hemlocks groan and shriek.
 Music sweet of singing bird,
 Only blithe and gay is heard
 Chick-a-dee,
 Chick-a-dee-dee-dee-dee-dee,
 Chick-a-dee,
 Chick-a-dee-dee-dee-dee-dee;
 How that cheery, merry note,
 Sounded from a happy throat,
 All this nook among the hills
 With a quickened memory thrills!
 How its rich and sweet content,
 To the gloom of winter lent,
 Gladdens me!
 Not the lonesomeness that's here,
 Not the dying of the year
 Saddens thee.
 In the leafy woods of June
 When the thrushes are in tune,
 When the thickets all are gay
 With the warbler and the jay,
 Pipe for memory again
 This same cheerful winter strain,
 Chick-a-dee,
 Chick-a-dee-dee-dee-dee-dee.

In Ninety-Three.

(To be spoken before the first of January, 1893.)

This is my birthday—I'm most a man;
 Exactly eight.
 I'm growing up, says my Uncle Van,
 At an awful rate.
 But I can't know everything quite clear
 Not quite, says he—
 Before my birthday comes round next year,
 In Ninety-Three.

What makes the moon grow thin and long
 Like a paper boat?
 How did they get the canary's song
 In his little throat?
 Why hasn't the butterfly something to do?
 Or why has the bee?
 What will become of Ninety-Two
 In Ninety-Three?

I'm always thinking and wondering
 As hard as I can;
 But there isn't much use in questioning
 My Uncle Van.
 For he only says, with a funny look,
 I shall probably see
 If I keep on growing and mind my book—
 In Ninety-Three.

It's long ahead till a fellow's nine,
 When he's only eight!
 But the days keep passing, rain or shine,
 And I can wait.
 For all these puzzles, that seem so queer
 Just now to me,
 I'll understand by another year,
 In Ninety-Three.

—Kate Putnam Osgood, in *St. Nicholas*.

A Window Garden in the School-Room.

(A love for the beautiful can be developed by the teacher who is expert in "making flowers grow." A south window may be filled with potted plants, and be watched and tended by teachers and pupils. The following hints from *Vick's Magazine* are of value.)

Whether grown in the window garden or greenhouse, plants should at all times be kept in good condition by removing promptly all decaying leaves and flowers, supporting such as require it by neat stakes, and the soil should be top-dressed occasionally. It is advisable to turn the plants frequently so as to keep them in proper shape, and the leading shoots of all rank growing specimens should be nipped back occasionally to promote a bushy growth. All plants whose pots are well filled with roots, as well as those which are commencing to bloom, should be given occasional waterings of liquid manure. The Excelsior Plant Fertilizer is excellent for this purpose, and can be purchased at any seed store or of any florist for about twenty-five cents a package postpaid. If one does not care to purchase, an excellent fertilizer can be made by mixing a tablespoonful of soot in a quart of hot water; when cold it is ready for use. Stir up well while hot, and just before using.

Spray or syringe the plants frequently to keep the foliage clean, but in doing this use water of the same temperature as the room or greenhouse, if at all possible, and always early in the morning and in bright, sunny weather so that the plants may have an opportunity to dry off before night. In sprinkling plants in the window garden nothing is better than the elastic plant sprinkler.

Abutilons will grow rapidly in winter. Pinch back the leading shoots occasionally, and give liquid manure to those whose pots are well filled with roots. Varieties with variegated foliage should be given as sunny a situation as possible and, if one has the necessary facilities, seed may be sown and cuttings rooted for summer blooming.

Azaleas in bloom, if properly watered and placed in a cool situation, will remain in perfection a long time. A. Indica alba is one of the best for the window garden. Begonias should be placed in the warmest part of the house and very carefully watered.

Camellias require liberal supplies of water. Cinerarias and calceolarias require close attention at this season of the year. Keep the plants as close to the glass and as cool as possible and give them plenty of room to avoid injury from damp and the attacks of insect pests. Water carefully. Plants coming into bloom may be shifted on into larger pots. Carnations should be given liquid manure occasionally. Keep the shoots neatly tied up. Callas grow rapidly and should be given an abundant supply of water. Dutch bulbs, such as hyacinths, tulips, crocus, etc., should be brought to the light as soon as their pots become well filled with roots and indications of top growth are noticed. To secure a succession of bloom a few of the most forward should be started into growth every week.

Fuchsias should be given liberal supplies of liquid manure. Geraniums.—Plants for winter blooming should not be crowded but allowed space to develop themselves. Give liquid manure at times. Plants intended for summer blooming should be kept cool and dry. Hollyhock seed if sown at once and the young plants potted off as soon as rooted and grown on slowly in a cool temperature, will produce fine plants for late blooming.

Justicia carnea, an old but neglected plant, may be treated as advised for geraniums. Myrtles and oleanders should be kept cool and in a state of rest.

Pelargoniums should be grown in a cool temperature and very carefully watered; top rapid growing shoots, air abundantly, and train so as to obtain handsome specimens. Roses will require close attention to keep the plants in a healthy condition. Liquid manure should be given occasionally, and the attacks of mildew, green fly, and red spider should be carefully guarded against.

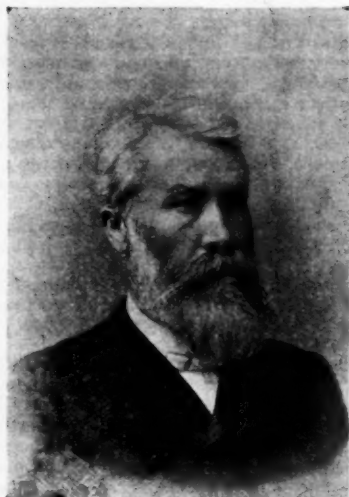
Pansies and violets in cold frames should be given an abundance of air whenever the weather will permit. Keep the plants clean and free from dead leaves, weeds, etc., and stir the ground between the plants occasionally. Protect the plants well at night during severe weather.

Answers To a "School Picnic"

(The story appeared in THE SCHOOL JOURNAL for Nov. 26.)

1. Gay. 2. Young. 3. Holmes. 4. May. 5. Cooper. 6. Goldsmith. 7. Taylor. 8. Pope. 9. Duchess. 10. Abbott. 11. Harte. 12. Bunyan. 13. Payne. 14. Haggard. 15. Nye. 16. Black. 17. James. 18. Bacon. 19. Porter. 20. Lamb. 21. Alcott. 22. Scott. 23. Dickens. 24. Burns. 25. Stowe. 26. Brown. 27. Cowper. 28. Steele. 29. Moore. 30. Hawthorne. 31. Reade. 32. Page. 33. Hale. 34. Tennyson. 35. Sand. 36. Longfellow. 37. Gulliver. 38. Ward. 39. Dodge. 40. Barr. 41. Coleridge. 42. Hardy. 43. Pansy. 44. Hood. 45. Gray. 46. Warner. 47. Lang.

The Educational Field.



Langdon S. Thompson.

Langdon S. Thompson was born fifty-four years ago in South-eastern Ohio. At seventeen he began teaching, and has made it his life work, occupying important positions at Sandusky, O., LaFayette, Ind., and more recently at Jersey City. He has also been officially connected with the State Teachers' Association of Ohio, and with the National Educational Association, having organized the art department of the latter. He is the author of the "Eclectic System of Penmanship," and of a work on "Industrial and Educational Drawing," being a specialist in each of these subjects.

He believes in special and practical education, but still more in the general culture on which the "special" must be built. While sympathizing with the theory and practice of manual training, he does not go to the extreme of advocating the possibility of its ever becoming a panacea for the ills attendant upon the struggle between labor and capital. He thoroughly believes in the professional advancement of teachers; hence, in the establishment of normal schools, schools of pedagogy, pedagogical professorships in colleges, in the study of psychology, and in every other means that helps to a correct understanding of child-nature.

Recently Mr. Thompson's best efforts have been given to the subject of art education, in the wide sense of its practical bearing on every-day life, and its use in cultivating the aesthetic taste, believing that man shows his real nature most clearly, when at peace, and in the creation of art work. At present he is supervisor of drawing in Jersey City, which position he has held since 1889.

The resolutions presented at the Massachusetts Teachers' Association by Mr. A. W. Edson, chairman of the committee, differ materially from those usually sawed out by the "resolution carpenters" at such meetings; there is some meaning in them.

1. The association asks for competent school supervisors. (It must be remembered that in Massachusetts there is a great deal of supervising by school committee, which is no supervision at all.)
2. It asks that college graduates be trained in the art of teaching, the state to provide suitable schools—high normal schools. (This is a grand step; there is a demand for pedagogically trained college graduates. Times are different. Once a college graduate needed nothing more; his cheek answered for pedagogical training. Even Massachusetts goes back on the graduate's cheek.)
3. Next the association demands that only those who have had a four years' high school course be admitted to the normal schools. (This is excellent; a good many go to normal schools who have just emerged from a grammar school. Commissioner Newman declared that the N. Y. State normal schools were "state high schools." How is it in Pennsylvania? How is it all over? Let other states move on this advance line.)
4. The compulsory law is declared radically defective. (This seems to be the case all over.)
5. A state board of examiners is called for. (In Massachusetts every petty school board is judge of the fitness of applicants; a strange state of things.)

At the 36th annual meeting of the Association of Officers of Colleges in New England held at Williams college Nov. 3 to 5, 1892, the following recommendations were adopted but no college faculty is committed to them.

1. The introduction of elementary natural history into the earlier years of the program of grammar schools as a substantial subject, to be taught by demonstrations and practical exercises rather than from books.
2. Of elementary physics into the latter year of the program as a substantial subject, to be taught by the experimental or laboratory method, and to include exact weighing and measuring by the pupils themselves.
3. Of elementary algebra at an age not later than twelve years.
4. Of elementary plane geometry at an age not later than thirteen years.
5. An opportunity to study French, or German, or Latin, or any two of these languages, from and after the age of ten years.
6. Increased attention in every study to secure correct and facile use of the English language.

To make room for these new subjects the time allotted to arithmetic, geography, and English grammar is to be reduced as may be necessary.

These recommendations are made in the interest of the public school system as a whole; but more particularly in the interest of those whose education is not to be continued beyond the grammar school.

The New York State Art Teachers' Association was partially organized at Saratoga, last July, and is to hold its first meeting at the New York college for the training of teachers, in this city, January 6 and 7, next, at which time the constitution which has been prepared will be acted upon. The opening prayer will be made by Rev. Charles F. Deems, N. Y.; address of welcome by the president, Edwin C. Colby, of Rochester; address, "Drawing in Art Education," Prof. A. D. F. Hamlin, N. Y.; "Elementary Art Education in the Public Schools," Miss W. Bertha Hintz, N. Y.; discussion of the same, Miss Stella Skinner, New Haven, Conn.; "Decoration as a Study in the Public Schools," Miss Elizabeth A. Herrick, N. Y.; discussion of the same, Mrs. Clara P. Driscoll, N. Y.; "Manual Training," Principal A. B. Morrill, Willimantic, Conn.; discussion, Principal Benjamin C. Wooster, Ridgewood, N. Y.

The new law in New York relating to district libraries is that any common school district of the state which shall furnish proof before Feb. 20, 1893, that moneys to the amount of not less than five dollars (\$5.00), nor more than one hundred dollars (\$100) have been voted and collected by the district, for the purchase of books for a school library, will receive through the State Department of Public Instruction an amount equal to the sum thus voted or raised. No portion of the school library money shall be expended except for books approved by the state superintendent. School libraries shall consist of reference books for use in the school-room, suitable supplementary reading books for children, or books relating to branches of study being pursued in the school, and pedagogic books as aids to teachers. The school library shall be a part of the school equipment and shall be kept in the school-building at all times. It shall not be used as a circulating library except so far as the rules fixed by the state superintendent shall allow. Teachers and school officers or pupils, with the leave of the librarian, may borrow from said library any book not needed for reference in the school-room, but such persons shall not borrow more than one volume at a time and shall not keep it more than two weeks. The teacher shall be librarian.

There is a training school at Madawaska, Maine, and the state pays \$1,300 towards its support. Its course of study says nothing about education; only about reading, grammar, physics, history, algebra, etc.; and those holding diplomas may teach in any of the schools of the "territory." But ought not education to be a subject to warrant the use of the term "Training School"?

Dr. E. E. White is delivering his addresses on "The Duty of the Hour," and "Character," to large audiences this year. He is filling the place that has been vacant on the platform for many years to the satisfaction of the American people. The Glens Falls Times says: "His manner, voice, and style of eloquence reminded the listener of Wendell Phillips in his best days."

State Supt. D. L. Kiehle, of Minn., recommends free text-books. He says: "The experience of other states and of many cities has been that the cost per pupil is reduced to about 40 cents, so that the average cost to a district of fifty pupils would be about \$20 annually. Fourteen summer schools were held in 1891 and sixteen in 1892. The largest of the latter was held at the state university, 743 teachers being enrolled in it." The superintendent recommends that \$20,000 be appropriated annually for the support of these schools in the future. He recommends: 1. A con-

tinuous and efficient superintendency. 2. A lengthening of the school year to seven and eight months. 3. Annual engagements of well selected teachers. 4. Improved facilities for instruction in a supply of blackboards, libraries, maps, and globes.

The superintendent urges legislation in the following respects:

1. A law providing for the support of summer training schools.
2. A law providing for free text-books.
3. A law providing for state teachers' certificates.
4. A law providing for uniform teachers' certificates.
5. A law requiring the county superintendents to inspect school-houses and to order necessary repairs and outbuildings. The amounts expended for common schools is two and a half millions; normal, \$77,000; institutes, \$12,000.

The Oakland (Cal.) *Times* gives some interesting specimens of compositions written by the public school children of that place, on the occasion of Thanksgiving day. Several expressed themselves as being thankful for the opportunity open to every boy, to become president of the United States. One boy was thankful that the farmers were plowing the fields, and that he was not helping them; another that he had gained already a small proportion of his education, while the next expressed himself as glad that the present term of school is near its close; another, that he was not out in the rain and that our country is not at war with any other; and one that he was going to have roast turkey on Thanksgiving day. One of the girls returned thanks that the cholera did not reach Oakland; another that Columbus discovered such a place as America.

It looks as though educational progress would be even greater during the next twenty years than it has been for the past twenty, which is certainly encouraging. In a recent number of the *Independent*, Dr. W. T. Harris points out that the United States puts in the school rolls twenty per cent. of its entire population. In the education of the people we take the lead of all the world except Saxony. Our school property has increased during the period mentioned from \$130,000,000 to \$350,000,000; while the increase of attendance in the South has been from six per cent. in 1870 to 20 per cent. in 1891.

One teacher at least introduced a new idea in his school for Thanksgiving day. The teachers of the different departments impressed upon the minds of the pupils the origin of the day. Then it was planned that a donation party was to form a part of the previous day's exercises at school, and all who could were requested to bring something to give to needy families of the town. Nearly every pupil came with a gift of some kind. The collection consisted of two sacks of flour, chickens, turkeys, potatoes, apples, celery, candy, beef, fruit, etc., besides \$2.25 in cash; it was turned over to a couple of needy families. A good deal was taught there not laid down in the program.

The many friends of Andrew J. Rickoff and Mrs. Rebecca Rickoff, will be deeply pained to hear that their only son, William Monroe, was drowned Nov. 12, at Anacortes, Washington, with another young man he was in a Rob Roy canoe which upset; he sank when assistance had almost reached him. His father and mother were at Anacortes visiting him at the time. He was a manly, sensitive, heroic, thoughtful, personage; no one could know him and not hold him in esteem. He was greatly beloved by the circle of acquaintances and friends that had gathered so readily around him.

The Hillsborough people appreciated Supt. Buchholz' services, and re-elected him by a large majority. He is fully committed to the "County Training School" idea; his German pedagogical training makes him a grand help among the orange groves.

The Ohio newspapers contain an account of a murder at a dog fight, in Hamilton, Ohio. The only reason for mentioning this is, that "the fight was under the supervision of two members of the board of education." The papers further say this fact "has created a sensation." We should say so. Members of a board of education running a dog fight! Examining teachers, too, to see whether they have a good moral character!

The *Utica Press* says that of 566 votes received from the parents of the children attendant upon the advanced school in that city, 485 favor one session a day; but volunteer the opinion that few of the parents have given the matter careful consideration. Among the arguments in its favor was the poor light in the afternoon of the winter months.

A "Children's Home" has been designed for the care of children at the World's fair while the mothers are visiting the exposition. No funds have been appropriated for such a building and the

board of lady managers will undertake the work of building and equipping a beautiful structure, depending wholly for means on private contributions. A desirable location has been secured on the condition that necessary funds for the erection of the building be provided within sixty days. There is another benefit to humanity to be derived from such a home, besides the simple care of the children. There will be presented the best thought on sanitation, diet, education, and amusements of children, and kindergartners will be there to supervise these amusements. A large square court will be fitted up as a play-ground, where no grown persons save attendants will be allowed to enter. Take it, all in all, it is to be a paradise for the children, and perhaps the first and last earthly one they will ever know. The enterprise is worthy of practical attention from those who hold full purses.

The *Independent* says that "Monsignor Satolli at the meeting of the Catholic archbishops declared that parishes must clearly be able to build and sustain parochial schools before such burden be imposed upon them. These schools must be equal to the competing public schools before pastors can compel children to attend them. The most flagrant abuse in connection with the question of parochial schools is the denial of the sacraments to the parents of children who go to the public schools. This practice is not very widespread, but it obtains in some dioceses presided over by German bishops, particularly in the West.

Helena, Montana, has a school-house that cost \$140,000, and is built of gray granite. There are twelve class-rooms, elegant halls, with tiled wainscoting, and an industrial training department in the basement, equipped with all modern improvements. Duluth, Minnesota, with a population of only 30,000, has put up one that cost \$450,000 and has forty-five class-rooms.

Supt. Jordan, of the Minneapolis public schools, is for a repeal of the by-law prohibiting corporal punishment. The board of education amended the rule, as some of the principals declared there were cases where it was absolutely necessary. The amendment permitting its use under limitations was carried by a vote of five to four. The president does not agree with Supt. Jordan and proposes to reconsider the matter at the next meeting.

Albert Morse in the *Atlanta Times* says:

"You speak of beginning the education of your son. The moment he was able to form an idea, his education began. His education goes on at every instant of time; it goes on like time; you can neither stop it nor turn its course." The idea that education is a process that teachers can guide, but not originate, is a new one, but it is correct. The teacher cannot say, "I educate you;" he can only say, "I directed the educational process that was in operation."

At the Educational Club, of Philadelphia, "The Cigarette Girl" was discussed. Dr. Holt said it was the tobacco question related to youth. (Just as if the saloons sold thimblefuls of whiskey to boys.) The reason that boys smoke is not that they want to taste tobacco but to imitate their elders. (These elders are often teachers!)

At the York, Pa., institute Prof. Hancher said: "Teaching induces a man toward mean criticism." (Indeed; did his hearers believe they were mean critics, or that some other teachers were?) This institute cost about \$1,000 for one week; at that rate a normal school would cost \$50,000 per year. Does the results warrant this expenditure?)

The *Democrat*, of Key West, says:

"It is better for a schoolboy or girl to enter life with gentle, courteous manners than to know the names of all the British sovereigns in their order; better even than to be able to repeat the battles of the American revolution. The charge is brought against the people's schools that the pupils are rude and jostling; that they are harsh and discourteous in their manner to strangers and to one another. In the kindergarten, one of the first greatest lessons is to learn the application of the golden rule."

A new industry has sprung up in the Indiana educational field. It appears some individual has been peddling, in advance, the questions to be used in the county examinations. It is said he did quite a business.

The pastor of the African M. E. church in Jamaica, N. Y., claims that the school for colored children in that city is not graded, and lacks discipline; and, being anxious to give his children all possible educational advantages, he sent them to No. 1, where white children go. The superintendent promptly sent

them home, the board refusing permission for them to attend there. The father has appealed to the state superintendent for redress.

A German boy set fire to a stack of hay, and was sent to prison for five days by the local magistrate. The Emperor upon being appealed to changed the sentence to five hours of school punishment daily for five days, and also instructed the six teachers of the school to map out a program for the boy and to see that it was carried out. The *Prussian Teachers' Journal* very pertinently inquires whether it was the teachers or that boy that burned the hay? There is a deal of truth in this question for the teacher not usually considered. "See that the boy does his work afterwards," say the wise committee and the thoughtless parent. Who gets the punishment in these cases?

Princeton university has decided to raise its requirements for entrance:

1. Herodotus in Greek in place of Homer, which will be reserved for reading in college as an epic poem.
 2. One modern language, either French or German.
 3. An exercise in English prose composition, based upon specified authors. Practice in English composition is seen to be too much neglected in the preparation of students.
 4. The minimum requirements are to be required of all candidates and include English composition, Latin grammar, and Latin prose, Caesar, five books Virgil, six books, Cicero, nine orations, Greek grammar, and Greek prose, Xenophon, four books, Herodotus, selection from the seventh book, the elements of French or German, arithmetic, algebra through quadratics, and all plane geometry. These minimum requirements are equal to the Yale entrance and superior to the Harvard minimum.
- Those who come up prepared in additional quantity as well as quality may get advanced standing in one or more of the subjects of freshman instruction at the start. In this way it is hoped to encourage the best schools in their efforts to send up boys who will not only meet the minimum requirements well, but distinguish themselves in one or more departments for which they have special aptitude.

The Free Press (London) says:

"As a matter of observed fact, neither reading nor writing is well taught in the lower grades of our schools. The pupils in our schools read nothing—as a rule—but fixed lessons of brief extent (and are sometimes kept two weeks and a month on one lesson). No person can learn to write easily, rapidly, and legibly except by much and continuous practice. The schools ought to give such practice. Instead, they set the boys and girls the task of laboriously imitating an engraved copy or a blackboard lesson for a certain time each day, and when their schooling is over the best they can do, as a rule, is painfully to draw an uncertain imitation of their copies as they remember them. They have no facility in writing and there is neither character nor dignity in what they do. In the teaching of English grammar the fault is still greater, and of one hundred pupils taken from our public schools not ten can or do speak correctly. They muddle their brains with an attempt to make a philosophical analysis of the language—a task in which no one can properly engage till after he has learned the language. Their education has not fitted them in any valuable degree for work; they cannot read well, write well, or speak correctly."

In an article in the *Ohio Educational Monthly*, Dr. E. E. White says:

"I recently saw a class of first-year pupils add columns of numbers like accountants, and I pitied the pupils! In one of our large cities, some two years ago, I saw pupils who had been in school only three months write sums of money, using \$ and correctly, and then add the numbers thus written, and again I pitied the pupils! I recently saw pupils, between five and six years of age, in school only five months, read twenty or more words written on the blackboard, actually determining, under the teacher's guidance, and by the application of rules, the silent letters, the sounds of vowels, indicating the latter by diacritical marks, etc., and I not only pitied the little ones, but felt sorry for the teacher who was faithfully trying the 'new system.' I left the room thankful that I was never put through such a drill in my first reading lessons. Indeed, I was ignorant of several of the rules which this skillful teacher was applying, and I am glad of it. I could make out new words before I was five years old, but it was an 'unconscious art.'"

Fall and Winter Associations.

- South Dakota State Teachers' Association, Brookings, Dec. 27, 29. M. A. Robinson, Secretary.
- Montana State Association; Missoula, Dec. 27-29.
- Iowa State Association; Cedar Rapids, December 27-29.
- Illinois State Teachers' Association; Springfield, December 27-28-29. George R. Shawhan, Urbana, Pres.; Joel M. Bowliby, Metropolis, Sec'y.
- Minnesota State Educational Association, St. Paul, Dec. 27-29.
- Indiana State Teachers' Association. Between Christmas and New Year.
- Address Prof. J. N. Study, Richmond.
- Nebraska State Teachers' Association, Lincoln, Dec. 27-29.
- South Eastern Nebraska Educational Association, Beatrice, last week in March.
- Wisconsin State Teachers, Madison, Dec. 27.
- Washington State Teachers' Association, Tacoma, Dec. 27.
- Colorado State Teachers' Association, Denver, Dec. 28, 29, 30.
- North Dakota State Teachers' Association, Valley City, Dec. 28-30.
- California State Teachers' Association, Fresno, some time in December.
- Mississippi State Teachers' Association, Jackson, Dec. 27-29. J. M. Barrow, Columbus, president.
- Michigan State Teachers' Association, Lansing, Dec. 28, 29, 30.
- Department of Superintendence, N. E. A., Boston, Feb. 21, 22, 23.
- South Western Missouri District Teachers' Association, Nevada, Mo., Dec. 27, 28, 29.
- Educational Association of the Territory of New Mexico, Las Vegas, Dec. 27, 28, 29.

Be sure to get Hood's Sarsaparilla, the peculiar medicine. Do not be induced to take any other.

Correspondence.

As to Criticism.

The spirit of sarcastic criticism of the public schools is abroad. That they are faulty, and that many of their practices are ridiculous, no one who knows them can deny.

That public ridicule is a sharp weapon, and unsanctioned by the best teachers every one who knows the schools, will admit. Its only legitimate use comes when all else fails. Perhaps all else has failed. Or, perhaps sarcasm tickles the public eye, and thus attention is gained by it when milder means would fail. At any rate, let us see that our own schools are conducted so that they will meet just criticism.

While we know those teachers in Baltimore and Buffalo and St. Louis, need to be roused from their ignorance, and lethargy, we know also they are sensitive in their feelings, and we stretch out the hand of sympathy to them in their mortification.

A theorist and critic honored us with his presence the other day. He had been theorizing and criticising—that is, finding fault—for five or six years. Evidently he had undergone that psychological process which results in habit. In one room the children were spelling orally before writing the words. Immediately his fiat went forth that it was a useless exercise.

Had he ever taught spelling to young children? "No." Then how could he possibly know that recalling the arrangement of letters in a word without the aid of the eye, does its little part in strengthening the imagination and thus helps written spelling? He saw on the blackboard written answers to questions in geography, an exercise which the teacher was giving as a drill. He thought drill was the "mighty instrument of little men."

The teacher knowing somewhat of the brain and its function, believed repetition even a physiological necessity in learning. She certainly knew its necessity from experience. He heard a teacher leading her pupils to formulate a rule, and in another case a definition. He did not believe in it. Children should be allowed freedom of expression.

The teacher knew that her previous work had fitted her pupils to understand the formulæ to which she was guiding them. She also knew how loose their constructions were apt to be and how limited their vocabulary. Our critic, never having dealt with children, did not realize how exact language tends to make a thought permanent in a youthful mind.

Now, taking the above as illustrative of the wholesale condemnation of whatever he saw, it can be seen what inaccurate and one-sided criticisms come from hasty observation of the practices of a school. There certainly is method in the madness of some teachers, and our critic might have detected it had he seen the work in its entirety. What he happened to see in our school if occurring all the time, should be condemned. We admit that oral spelling and drill and formulated expressions, with nothing else, would be mechanical and harmful. But we do not admit that they have not a place in school work.

It is barely possible that, like our critic, Dr. Rice has gone into the schools with an eye open to adverse criticism. His keen sense of the ridiculous has helped him on to detect the absurdity of certain practices, and he has shown them up in very readable magazine articles. But he can find schools and schools, if he looks for them, where the teacher is master of the subject taught and uses good language, where the sing-song, concert-recitation never occurs, and where the mark is not literally told.

It is the mark of a just critic to look on both sides—and when Dr. Rice, or any one else, proves that he does this, he will be welcome to our schools; for in all of them there is something to commend; many of them deserve the highest praise.

PRINCIPAL.

Christmas Suggestions.

As Christmas approaches, teachers begin to ask, "What can we do to give the children some special enjoyment in the holiday time?" The old way was to give bonbons, or cards, or picture-books, or a sleigh-ride, or something which was altogether too much of a strain upon a teacher's slender pocket-book.

The change in the work of the schools furnishes more legitimate means of giving pleasure than the old-time way. Assuming that most primary schools are furnished with material for some of the kindergarten occupations, or with the somewhat similar material that is used in form study and drawing, we also assume that children can be led to experience positive delight in "making" and "doing," when told that what they make and do may be used as Christmas gifts for the home-friends. In our school we have been saving for some time specimens of drawing, cutting, paper-folding, pasting, weaving, sewing, also specimens of work in number, language, penmanship, spelling, etc., which have been mounted on paper of uniform size and color, and tied together with a bit of ribbon to make a book. These books are to be presented to the fathers and mothers. The eagerness of the chil-

dren to add a leaf to their book is something delightful to behold. As an incidental benefit to be derived from this work, the parents actually see what their children are doing in school. The grammar school pupils are making boxes of different shapes, and ornamenting them with foldings or cuttings of paper of different colors. These ornamental boxes are sent with Christmas greetings to the primary classes. In return the primary pupils send blotters with a perforated cover sewed in geometric figures and tied with a ribbon, or book-marks woven of colored paper, or cards with flower designs perforated and a tiny calendar attached, or cornucopias made of woven mats. Many of the classes write Christmas letters to their parents, and enclose them in envelopes of their own making. This may seem a very simple pleasure, but it is anticipated with great interest, if we may believe the expressions in the letter-writing exercises of the year. Moreover, who shall say the simple pleasures are not the best?

All of the above work, in connection with the Christmas music and the memorizing of appropriate poetry, and the story-telling and reading makes the children, young and old, delightfully happy for a month before the holidays.

Perhaps the best feature of all is that nothing is done which is not directly related to the school-work, and which is not just as profitable work as is done at any time during the year. Moreover the opportunity given to interchange gifts and greetings is fostering in the children the true Christmas spirit of "Peace on earth, good will to men."

TEACHER.

Lowell, Mass.

To the Editor of THE JOURNAL:—It seems to me a primary teacher needs to do all she can to make the child forget the fact that she is their teacher. When little ones come to me hurriedly, exclaiming "O, mamma!" and, then, surprised at their mistake, say, "Why, I called you mamma," no higher compliment can be paid me. I know I have the confidence of that child, and that there is no more between us than between parent and child. We need not sacrifice discipline or good order, to attain these results; on the contrary, better order will be gained, for a word or reproachful look from one they love is all-powerful.

A little fellow said to me the other day in school as I was repairing his "lastics," "Why, it seems as if you was our mother." How I appreciated the wording "our" mother, with sixty little ones busy in their seats.

I strongly advocate doing away with keeping pupils after school as a punishment or for study, thereby teaching a child that school is a place to escape from at every possible opportunity. Let us teach them instead that it is a pleasant place (and make it pleasant) and the direst punishment you can suggest will be, "I shall certainly be obliged to send you home." One little boy said to me, "Why, school is just like a birthday party, only we go home for the supper." If we can make the first two years of a child's life in the school-room pleasant the good result will be with him the rest of his life.

EDITH F. ROBINSON.

Stoughton, Wis.

To the Editor of THE SCHOOL JOURNAL:—Some time ago the idea of organizing a Primary Teachers' Association, for the purpose of professional advancement suggested itself; and the idea has been carried out this fall, and we now have a promising organization.

Meetings take place once a month (third Tuesday), at the high school. At each meeting a topic, previously announced, is taken up and discussed informally.

In addition to the regular topic for the day, a question box is introduced. Any teacher who meets a difficulty that she is unable to solve satisfactorily, is at liberty to place a question in regard to the matter in the box. Some other teacher who may have the remedy that she needs, answers it.

Under the topic "Reading" these sub-divisions will be taken up in the near future:

1. Our aim in teaching reading.
2. By what method can it best be accomplished?
3. Can the word, sentence, and phonic methods be combined? How?
4. When shall print be introduced? How?
5. What place shall silent reading occupy?
6. What is the use of supplementary reading, etc.

Trenton, N. J.

L.

On and after Sunday, December 18, important changes will be made in through trains via Pennsylvania Railroad leaving New York as follows: Columbian Express at 9 A. M. daily, instead of 2 P. M.; arriving at Pittsburgh, 9 P. M.; Chicago, 10 A. M.; Cincinnati, 6:35 A. M.; and Indianapolis, 7:55 A. M., with sleeping and dining cars through to those points. At Philadelphia connection will be made with Fast Line for all points in central and western Pennsylvania, Cleveland, and Toledo.

Pennsylvania Limited at 12 noon daily, instead of 10 A. M., arrive Chicago 12 noon. Sleeping car to Cincinnati discontinued on this train.

St. Louis & Cincinnati Express at 12 noon, instead of 2 P. M., with through sleeping and dining cars, arriving in St. Louis, 5:30 P. M., and Cincinnati, 8:15 A. M.

Southwestern Express will leave at 7:50 P. M.; Sundays, 7:45 P. M.; forty minutes earlier than present schedule; no change in through connections; sleeping and dining cars.

There will be no change in Western Express and Pacific Express.

New York and Washington Limited will leave at 10 A. M., instead of 10:10 A. M.

The 2:10 P. M. train for Washington and the South will be changed to leave at 2 P. M.

New Books.

No part of American history is of more thrilling interest than that relating to the struggle of the French and English for the control of the North American continent. During that struggle Jean Baptiste Le Moyne, Sieur de Bienville came to the front and left his impress indelibly on the history of the times. His story is told in one of the volumes of the Makers of America series, by Grace King. In writing the biography of so active and important a personage it is of course necessary to bring in a great part of the history of the continent during the early part of the eighteenth century, and especially the means taken by the French, knowing that their hold on Canada was insecure, to strengthen and confirm their hold along the Mississippi river and at its mouth. The story as presented by the author, including the expeditions through the wilderness, the fights with the Indians, the intrigues by the English and French for advantages, etc., is of absorbing interest. The student who is collecting a library of American history should not neglect this valuable volume or its companions in the series. (Dodd, Mead & Co., New York. \$1.00.)

A small volume of 187 pages contains *Some Rhymes by Ironquill of Kansas*. We may say at the outset that it would take only a very slight examination of these verses to show that Ironquill had found fun as well as poetry on the Kansas prairies. We cite, for example, among his "Fables," the pup that bayed at a Kansas zephyr "in a gay semi-idiotic way," as an example, and was turned wrong side up and wrong side out.

The moral he draws is that those who face disorderly social forces should keep their mouths shut or they will land them "without doubt, upside down and wrong side out." There are many others of a humorous character but there are others of a serious character! "Quivera—Kansas" strikes us as particularly good. The author has tried a great variety of verse and seems to have made great progress in mastering the technique of the poet's calling. There are indications in this book to show that the author has sufficient ability to warrant the attempt at something more ambitious. (A. C. McClurg & Co., Chicago. \$1.00.)



"One who proudly trod the floors and softly whispered in the doors,
'May good angels bless our home.'"

From "Mrs. Browning's Poems." (FREDERICK A. STOKES CO., New York.)

Rev. Chas. J. Adams has written a book with the odd title of *Where is my Dog? or, Is Man Alone Immortal?* in which he makes a plea for a belief in the immortality of the lower animals. The author considers the subject in the light of phrenology. He shows a wonderful knowledge of men and animals, considering the resemblances between the two and showing that there are no attributes in the character of men and women that are not found in at least a degree among some of the animals. The fund of anecdotes relating to animal life is sufficient to make the book one of intense interest; one purpose will certainly be served by the book, that is the securing of more consideration in the treatment of our animal friends, and no lover of a horse or dog or any pet should fail to be interested. (Fowler & Wells Co., New York. \$1.00.)

Charles C. Abbott, M. D., in *Recent Rambles; or, In Touch with Nature* shows how one can get the most pleasure from the observation and study of natural objects. One must cut loose entirely from the conventionalities of the town; nature alone must suffice. The author shows how to do this by telling his own experience. He relates in an agreeable way the incidents that occurred during rambles about his home. For such study one needs no text-book on botany, zoology, or geology with its long scientific names, but a quick eye and a ready appreciation of the beauties that lie before one at every step. Thoreau and Burroughs have given us some delightful descriptions of this kind, and in the same way Dr. Abbott conducts his readers through wood and over meadow pointing out things which the ordinary

person would not observe. The style is simple and flexible, so exactly fitted to the thought that one reads on and on without weariness. Those who have not tried this way of studying nature should read Dr. Abbott's book and then go out in the woods and fields and they will be surprised at the number of interesting things they will see that were never seen before. The book has a number of handsome illustrations. (J. B. Lippincott Co., Philadelphia. \$2.00.)

Edward Eggleston's *The Hoosier Schoolmaster*, that pioneer of dialect stories, whose success has been so remarkable, has appeared in a library edition that is destined to have a wide circulation. Few stories have ever had so unique a history. Written originally for a periodical it was copied far and wide and in a few years translated into several European languages, though how they could render some of the dialect and slang, we fail to see. The book is an illustration of how the public will persist in buying and reading the early productions of an author that have made a fortunate hit even after he has produced other, and so far as polish is concerned, superior works. *The Hoosier Schoolmaster* is true to nature, the characters are living, breathing realities. The country school with its big girls and its big, unruly boys, and the country people with their peculiar ways and homely speech, will be matched in many a man's and woman's experience, particularly in sections where the custom of boarding around was practiced. In the preface Mr. Eggleston has given many curious facts concerning the origin and history of the novel and explains many words and expressions employed in the book. (Orange Judd Company. \$1.50.)

No one has drawn more vivid and interesting pictures of the East, interspersed with mellow humor, than Charles Dudley Warner in his book *In the Levant*. Many changes have occurred since it was written seventeen years ago. As regards details in matters of government and methods of travel, certain inaccuracies, are allowed to stand. But Mr. Warner's book is not a guide-book, nor is it a history, although it has elements of them both. His purpose is to give an idea of Levantine landscape and cities, and this he does in a delightful way. The edition is in two volumes, bound in olive green and red, with gold stamping, and is illustrated with twenty-four photogravures, which in delicacy of execution equal the very best French work of this kind. The same artistic discrimination in the choice of subjects for reproduction which distinguished the two previous publications is noticeable likewise in this last one. The illustrations are of just those scenes and places we most wish to see. Naturally many, if not all, are familiar; for Mr. Warner's tour was along well-worn roads. The work in this handsome shape will be as popular as the fine editions of some of some of Hawthorne's books, issued by the same publishers, that many of our readers will remember. (Houghton, Mifflin & Co., Boston and New York. Two volumes. \$5.00.)

A most instructive and entertaining book has appeared in *Quabbin*, written by ex-Consul Francis H. Underwood. The name Quabbin is that of the town or village which he makes the center and scene of his reminiscences and descriptions. What he tells might apply to scores of New England towns, but he concentrates our interest for the time being on the life of this particular one, representing himself as returning to it after sixty years of absence, and using the reminiscences of youth, he presents to us its scenery, its inhabitants, its daily life and occupations, its average routine, its more striking individualities of character, its

tragic and comic incidents, its hard task-life, its rough inventions for play and amusement, its gossip, its religious guides, its schools, etc. It will be seen that the author has touched upon all sides of this many-sided life, and this together with the graceful style makes it a very entertaining volume. The illustrations show many scenes in and around this romantic village. (Lee & Shepard, Boston. \$1.25.)

Childhood is a monthly magazine, the first number of which has just appeared. It is edited by Dr. George William Winterburn, and covers a field not hitherto occupied. It is addressed to parents, teachers, and all who are interested in the welfare of children, and will endeavor to inculcate the most advanced ideas in regard to the moral, intellectual, and physical development of children. It contains thirty-two double-column pages, and the first number contains a series of articles by well known writers.

Miss Anna Chapin Rav spent a summer in a mining camp in the Rocky mountains, and has embodied her experience in a story for boys and girls, entitled *In Blue Creek Canon*. She introduces a number of the simple-hearted, healthy boys and girls, and depicts them, and the sports and pastimes in which they engage, in a lively and interesting way. It opens in the breeziest and most alluring manner, and the spirit which animates the young skaters on the pond in the canon in the first chapter never fails. Her descriptions are natural, the conversations bright, and there is a quiet vein of humor running through the story. (T. Y. Crowell & Co., New York and Boston. 12mo. \$1.25.)

Important Events, &c.

Selected from OUR TIMES, published by E. L. Kellogg & Co.; price, 50c. a year.

News Summary.

- DEC. 1.—Death of ex-Gov. Hoyt, of Pennsylvania—Pres. Diaz, of Mexico, inaugurated for another term.—English residents of Samoa attacked by natives.
- DEC. 3.—A memorial to Scotch soldiers in the American civil war to be erected at Edinburgh, Scotland.
- DEC. 4.—The Erie canal closed for the winter.
- DEC. 5.—Opening of Congress.—The peasants in several provinces of Russia again suffering from famine.
- DEC. 6.—The Nicaragua government satisfied with the progress made so far on the canal, an acknowledgment which assures the company of ten years' time in which to complete the work.—The Philadelphia Ledger office burned.
- DEC. 7.—A new ministry chosen in Canada.—Hungarian railways blocked by snow.—Brooklyn to ask to be united to New York.
- DEC. 8.—Gen. Rosecrans seriously ill.
- DEC. 9.—The Congo company sends strong reinforcements from Stanley Pool to Katanga.
- DEC. 11.—Great Britain decides to adopt penny postage throughout the empire.
- DEC. 12.—The filing of Jay Gould's will shows that he had prop-

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erty in New York state amounting to seventy-two million dollars. —Armour gives \$1,500,000 to Chicago for a manual training school.

DEC. 13.—Prof. Briggs, on trial for heresy, speaks in his own defense before the New York Presbytery.

DEC. 14.—James G. Blaine seriously ill.—Twenty lives lost by an explosion in the Bamfurlong colliery, England.

DEC. 15.—President Hippolyte, of Haiti, narrowly escapes assassination; all the conspirators shot.

DEC. 16.—The Mexican government taking measures to oppose a threatened revolution on the Texan border.

THE EX-PRESIDENTS OF VENEZUELA.

Paris seems to have great attractions for exiled Venezuela presidents, there being no less than four in that city. The first is Gen. Guzman Blanco, who ruled the Venezuelan Republic from 1870 until 1889, when the statues he had erected to himself were overthrown by the people of Caracas, and he was morally forced to resign the post of minister to France, a position he was in the habit of occupying when he wanted a vacation. The exiled Queen Isabel II., of Spain, is Guzman Blanco's next-door neighbor. Next to him comes Dr. Raimundo Andueza Palacio, made president of Venezuela in 1890 by Rojas Paul, whom he afterward exiled from Caracas. Palacio was obliged to leave the country and all his property was confiscated, but he has plenty of money. Most South American presidents have a way of putting away money in European banks for a rainy day. Then comes Dr. Villegas Pulido, who took possession of the presidency when Palacio was obliged to abandon his country to its fate. Villegas Pulido is considered a very intelligent statesman, but he also was forced to leave Venezuela, though he did not forget to take with him all of the gold onzas which were within his reach. Last of all is Gen. Eleazar Urdaneta, who succeeded Pulido as president, but the revolution getting too warm for him he followed his three predecessors to Paris.

THE POET-LAUREATESHIP.

Although Tennyson has been dead for several weeks no one has been appointed to succeed him as poet-laureate. The office is supposed to have originated with Chaucer and among the other great poets who have held it are Ben Jonson, Dryden, and Wordsworth. It is chiefly an honorary office, the occupant being required merely to write verse for anniversaries in the royal family or state occasions. The two most prominent candidates for the office are Swinburne and William Morris. Swinburne is a lyric poet of a high order, but he once said something about a "poet-laureate being a humming-bird on a queen's wrist" that may bar him out. Morris has turned anarchist, which renders him unavailable. The others mentioned are Lewis Morris, Alfred Austin, and Sir Edwin Arnold. Of these Arnold seems to be the leading candidate so far as poetic ability is concerned.

JEWS GOING TO PALESTINE.

The reoccupation of Palestine by the Jews bids fair to be actually accomplished. There are now in that land over 100,000 Jews, a larger number than there has been since the end of the first cen-

tury of the Christian era. The Jewish population of Jerusalem is now 40,000, and a large part of the real estate in and about the city is in their hands. Telegraphs, electric lights, and other improvements have been introduced and a new railroad to Jaffa is in operation. If the number of Jews in Palestine should increase for the next ten years as rapidly as during the past ten years the Jewish population of Palestine will reach a million by the dawn of the twentieth century. The shutting out of the Jewish as well as other European immigrants from the United States will help along the movement.

TAXATION IN GERMANY.

Some years ago Prince Bismarck made the famous remark that "While there are pike in the European fishpond we must not be carp," meaning that so long as there are large standing armies around them Germany must also have a large standing army. That seems to be the sentiment of Emperor William also, for he made a speech recently in which he appealed to the patriotism of the country to help him increase the army. In order to do so it is proposed to increase the tax on beer and liquor and to put a tax on "stock operations." There is no danger at present that war will come unless it might result from the ill feeling caused by the taking of Alsace and Lorraine from France. These provinces have been a great burden on the German people and are of no use to the empire except from a military point of view. There may come a time when the people will decide that they are being taxed too heavily for the glory of retaining these two small provinces.

NOT AMERICAN VESSELS YET.—Up to this time the Inman Steamship Company has taken no direct steps to secure American registry of the ocean grayhounds, the *City of Paris* and the *City of New York*, in accordance with the special legislation to that end enacted at the last session of Congress. It is said that the delay is solely to secure additional legislation from Congress which will enable the foreign officers now in command of the two ships to continue in that capacity after the American flag shall have replaced the British ensign at the masthead. These officers have already declared their intention of becoming American citizens.

A MINE CAVE-IN.—People at Lost Creek, near Shenandoah, Pa., were in a great state of excitement recently on account of the sudden caving in of 300 feet of surface, over which the Lehigh Valley Railroad ran. Four tracks were carried down with the fall to a depth of twenty-five feet. The people are in a state of dread, being in fear of a still further settling. The caving in was occasioned by the robbing of pillars, which has been carried on for some time in some breasts of the Lehigh Valley's Packer collieries, by which operations the entire valley is honey-combed.

INDIANS HUNGRY AND DESPERATE.—A U. S. army captain who has been investigating the condition of Indians in the West, says that they are in terrible shape. The Cheyennes, Comanches, and Arapahoes, about 5,000 in all, are hungry and desperate. They have frittered away their money and now they have only half rations to subsist upon. Full rations were hardly enough to

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fatten a flea, and half rations barely sustain life. South of them, in Texas, the Indians see cattle ranges inviting them to pillage, and north of them, in Kansas, they see abundance. Yet they are hungry, their women and children famished, and they know that the horrors of winter are coming on. The officer thinks the government ought to give them more food.

Science and Industry.

SMOKESTACKS 100 FEET HIGH.—The plans for the new armored U. S. cruiser No. 3 call for three smokestacks each 100 feet high, from 30 to 40 feet higher than any other ship in our navy. These will detract from the beauty of the ship, but will give additional draught, and will do away with the necessity for forced draught in ordinary steaming. They will also carry the smoke and gas above the military masts of the ship, and give the men on the tops a chance to fight without being smoked out.

SUPPLIES FOR THE POSTAL DEPARTMENT.—In its postal service, the United States uses annually 25,000 pounds of wrapping twine, half a million lead pencils, 1,500 barrels of ink, 7,300 quarts of mucilage, 10,000 pounds of rubber bands, 12,000 gross of pens and various other items in similar quantities. These are all shipped from a large brick warehouse on E street, Washington, D. C.

TELEPHONING FROM THE SEA-BOTTOM.—The diving apparatus is one of the latest objects to which the telephone has been applied. A sheet of copper is used in place of one of the glasses in the helmet, and to this a telephone is affixed, so that the diver, when at the bottom of the sea, has only to turn his head slightly in order to report what he sees, or to receive instructions from above.

OPENING THE IRON GATE.—The Danube river, which is the means of water communication for Vienna with the Red sea, is not navigable by large ships, owing to shoals and rapid currents; but the Austrian government is endeavoring to remove the obstacles, the chief of these being what is known as the Iron gate, a rocky gorge between Roumania and Servia on the Hungarian boundary. It is proposed to make a channel 6,800 feet long, the sides of the channel to be formed by two walls of masonry, the river bed between these walls to be blasted out.

MAKING GUN-FLINTS.—It is the general impression that the use of gun-flints has been discontinued. Such is not the case. The trade in flints has revived and they are now being sold in large quantities. Flints used to be sent chiefly to Brazil and other parts of South America, but now they go for the most part to South Africa. A gun-flint has to be thrown away after being used thirty or forty times.

THE ISLAND OF JERSEY.—This is one of the most productive spots on the face of the globe, maintaining a population of 60,000 on 28,717 acres, from which a considerable reduction must be made for rocks and roads. The farmers work from three to thirty acres each. Seven hundred bushels of potatoes, eighty bushels of wheat, and five tons of hay per acre are not unusual, while much of the land produces three crops a year. In the winter the ground is planted with potatoes for the London market, in April and May followed by a crop of grain, and subsequently of vegetables.

PROBABLY HIGHER THAN MT. ST. ELIAS.—For many years Mount St. Elias has been considered the highest land on the North American continent, but not since recent measurements. By trigonometrical measurements the height of Star mountain or Orizaba in Mexico has lately been fixed at 18,312 feet. Russell last year gave Mt. St. Elias a height of 18,100 feet.

GUARDING AGAINST CONSUMPTION.—A society has been formed in Philadelphia for the prevention of tuberculosis. It has been shown that families moving into houses where the former occupants had been victims of this disease exhibited symptoms within a short period. Fully one-half the cases of consumption in one ward are believed to be due to living in infected houses. The new society will work among the poor, showing them how infection can be avoided.

Geographical Note.

THE AFRICAN ELEPHANT.—There is a prevalent belief that the African elephant cannot be used as a working animal like his docile cousin of India. This idea is erroneous. Most of the elephants exhibited in menageries come from Africa. The African elephant is easily distinguishable from the Asiatic species by the convexity of his face, the great length of his tusks, and particularly by the enormous size of his ears. To-day he is not found north of the desert of Sahara. When he was largely utilized by man, however, he was found in great troops not only in upper Egypt, but also in the forests of Morocco and Algeria. It was somewhere between the third and the seventh century of the Christian era that the elephant finally disappeared from north Africa.

Old Point Comfort, Va., and the Pennsylvania Railroad Company's Tour.

During the holiday season there is always additional gaiety in military circles, and nowhere is it felt more than at Fortress Monroe. With this in view, the Pennsylvania Railroad Company has planned a charming Christmas holiday personally conducted tour to Old Point Comfort, leaving New York at 8.00 A.M., December 27th, covering a period of four days, at a round-trip rate of \$18.00. This rate includes Railroad fare, accommodations at the famous "Hygeia" Hotel, and all necessary expenses.

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